

AF/3711

#24  
6/26/01  
Pulley

PATENT

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Sullivan  
For : IMPROVED MULTI-LAYER GOLF BALL  
Serial No. : 08/926,246 ✓  
Filed : September 5, 1997  
Group Art Unit : 3711  
Examiner : M. Graham  
Last Office Action : July 17, 2000  
Customer No. : 24492  
Attorney Docket No. : P3724-F1-C1  
(SLD 2 0035-1-2-2)

TECHNOLOGY CENTER R3700

JUN 26 2001

RECEIVED

Cleveland, Ohio 44114-2518  
June 22, 2001

**APPELLANT'S REPLY BRIEF UNDER 37 C.F.R. 1.193**

Attention: Board of Patent Appeals and Interferences  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

This is in reply to the Examiner's Answer mailed April 24, 2001.

Appellant takes issue with the Examiner's position expressed in that Answer and herein replies to the following matters: (i) the Examiner's view that claims 2 and 4 are not separately patentable and so, are considered to stand or fall with claim 1; and (ii) the rejection of claims 1-8 under § 112, first paragraph.

**A. Claims 2 and 4 Are Separately Patentable From Claim 1, and Separately Patentable From Each Other**

**CERTIFICATE OF MAILING**

I hereby certify that this is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on June 22, 2001

By: Mary Ann Temesvari

Mary Ann Temesvari

The Examiner asserted that claims 2 and 4 should stand or fall with claim 1. Appellant respectfully disagrees.

Independent claim 1 recites a three piece solid golf ball comprising a center core, an intermediate layer, and a cover enclosing the core through the intermediate layer. Claim 1 further recites that the center core has a diameter of at least 29 mm and a specific gravity of less than 1.4. Claim 1 additionally recites that the intermediate layer has a thickness of at least 1 mm, a specific gravity of less than 1.2, and a hardness of at least 85 on the Shore C scale. Claim 1 further recites that the specific gravity of the intermediate layer is less than the specific gravity of the center core. Furthermore, claim 1 continues and recites that the cover has a thickness of 1-3 mm and is softer than the intermediate layer.

Appellant respectfully submits that claims 2 and 4, each dependent from claim 1, are separately patentable from claim 1 and, separately patentable from each other. Claim 2 further recites and specifies that the intermediate layer is formed from a high repulsion ionomer resin base composition. This aspect is a separately patentable distinction from the subject matter called for in claim 1. Claim 1 does not specify the composition of the intermediate layer, instead only defining its thickness, its specific gravity, and its hardness. Claim 2 specifies a particular material for use in forming that intermediate layer. That is a significant and patentable distinction.

Claim 4 is also dependent from independent claim 1 and specifies that the center core is comprised of a polybutadiene base rubber composition. Claim 1 does not specify any composition or material for use in forming the center core. Accordingly, claim 1 only recites that the center core has a particular diameter and a particular specific gravity. Claim 4 specifically recites a type of material for use in forming the core. Claim 4 recites a significant and distinct patentable aspect from the subject matter of claim 1.

Claims 2 and 4 are separately patentable from each other. Claim 2 is directed to the composition of the intermediate layer. In contrast, claim 4 is directed to the composition of the core.

For at least these reasons, claims 2 and 4 are in fact separately patentable and thus, do not stand or fall with claim 1.

**B. Rejection of Claims 1-8 Under § 112, First Paragraph Is Improper**

In summary, the Examiner and Appellant disagree as to the proper standard for review under § 112, first paragraph. As explained herein, Appellant submits that all that is required is that the present specification reasonably convey that, at the time of filing, the inventor had possession of the claimed subject matter. The Examiner, in contrast, requires exact literal support in the specification for all numerical values and ranges recited in the pending claims. Appellant submits that application of such a standard constitutes reversible error.

It is also instructive at this juncture to note that the standard to be applied under § 112 is the same regardless of whether a claim is copied from another patent in an attempt to initiate an interference, or whether the claim is presented during *ex parte* prosecution.<sup>1</sup>

The law is clear that such standard is the same. The requirement of 35 U.S.C. § 112 relating to adequate disclosure of the specification is the same for a claim copied for the purposes of instituting an interference and for a claim presented during *ex parte* prosecution of a patent application. *In re Spina*, 975 F.2d 854 (Fed. Cir. 1992). In *Spina*, the court cited *In re Smith*, 481 F.2d 910, 178 U.S.P.Q. 620 (C.C.P.A. 1973), and stated that the description requirement is the same whether for priority, for an interference, or for *ex parte* prosecution. *In re Spina* at 857.

**1. Claim 1**

Claim 1 recites that the center core have a diameter of at least 29 mm.

---

<sup>1</sup>Appellant is of the view that the Examiner believes that a different analysis and perhaps a different standard is used depending upon whether the § 112 issue arises in an interference context or not. Appellant bases this view on a statement by the Examiner in the Examiner's Answer:

to come back after the fact and copy a patent which was interested in those ranges is the essence of new matter.

The Examiner contends that Appellant is not entitled to claim anything less than 39.243 mm (the preferred core diameter).<sup>2</sup>

However, the Examiner's position here is entirely incorrect. It is almost ludicrous to hold the Applicant to the specific parameters of his preferred embodiment when broader descriptions are present in the application. For example, the Examiner ignores a reference in the present specification of other core ranges such as a core diameter range of 37.97 to 40.01 mm. At page 35, a core diameter of about 1.495 to about 1.575 inches is disclosed, which corresponds to the noted range expressed in millimeters.

The Examiner's refusal to find support for anything less than the preferred diameter which is expressly disclosed in the specification, is simply wrong. Appellant respectfully submits that the present specification reasonably conveys to persons skilled in the art that the inventor had possession of the subject matter in question. The proper test for this determination is not the presence or absence of literal support. This was made abundantly clear by the Court of Appeals for the Federal Circuit (citations omitted).

Additionally, the Examiner's rejection on this ground is deficient because the Examiner did not present evidence or reasons why persons skilled in the art would

---

<sup>2</sup>Appellant also takes issue with the Examiner's mischaracterization that "appellant is claiming a range from 29 mm to infinity." Of course that is not the case. All claims at issue are directed to golf balls which do not have an infinite diameter.

not recognize, from a reading of the specification, a description of the invention defined by the claims.<sup>3</sup>

The Examiner also took a similar position with respect to a recitation in claim 1 that the core has a specific gravity of 1.4 or less. Apparently, the Examiner is of the view that Appellant is not entitled to claim specific gravities between 1.4 and 1.155.

A core specific gravity of 1.154 is disclosed on page 39 (arrived at from a disclosure of a core weight of 36.5 grams and a core volume of 31.642 cm<sup>3</sup>, which in turn stems from a core diameter of 1.545 inches on p. 39). A wide array of other core specific gravities are disclosed in the specification as a wide range of core diameters are noted.

Appellant previously explained that the specification is not required to explicitly disclose each and every specific gravity value, so long as the claimed range is reasonably conveyed to one skilled in the art.<sup>4</sup>

Claim 1 also recites that the intermediate layer has a thickness of at least 1 mm.

The Examiner asserted that the specification does not provide support for thicknesses greater than 2.54 mm.

---

<sup>3</sup>The U.S. Patent and Trademark Office bears the initial burden of presenting a *prima facie* case of unpatentability. Specifically, the Patent and Trademark Office bears the burden of showing that the invention recited by the claims is not described in the specification. *In re Wertheim*, 541 F.2d 257, 265 (CCPA 1976). Arguing that the specification lacks literal support for the claims is not sufficient. *Id.* The Patent Office must "give reasons why a description not *in ipsius verbis* is insufficient." *Id.* Insofar as the written requirement is concerned, that burden is only discharged by presenting evidence or reasons why persons skilled in the art would *not recognize* in the specification a description of the invention defined by the claims.

The Examiner failed to meet a *prima facie* case for unpatentability since the support for the claims can be found in the present specification. The Examiner's assertion that the specification does not disclose each and every range cited in the present claims does not, by itself, adequately support a rejection under 35 U.S.C. § 112, first paragraph. Instead, the standard under 35 U.S.C. § 112, first paragraph, is whether the specification reasonably conveys to one skilled in the art that the inventor had possession of the claimed invention.

<sup>4</sup>Applying the standard of review imposed by the Examiner, in order to find sufficient support for a range of 1.4 to 1.155, the present specification would have to disclose core specific gravities of 1.15, 1.16, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.23, 1.24, 1.25 and so on up to 1.40. Or perhaps the Examiner would require disclosures of 1.155, 1.160, 1.165, 1.170, 1.175, 1.180 and so on. One can only guess what degree or number of references to specific gravities would be required to satisfy the Examiner's standard. Clearly such ambiguous requirements are improper.

Again, Appellant submits that the Examiner is requiring absolute *ipsis verbis* disclosure by the present specification. As the Federal Circuit has repeatedly pronounced, that is not the proper standard under § 112 (citations omitted).

Appellant further notes that U.S. Patent 5,553,852 to Higuchi et al. (submitted as Exhibit A to Appellant's Appeal Brief), from which the claims of the present application are derived, also claims an intermediate layer having a thickness of at least 1 mm but is not inclusive of thicknesses above a particular threshold. Specifically, the '852 patent discloses at col. 3, lines 29-30, that the intermediate layer thickness is preferably 1.5 to 3.5 mm. Following the Examiner's logic with respect to the claims at issue, the '852 patent specification is not inclusive of thicknesses above 3.5 mm, but yet that patent claims thicknesses that encompass thicknesses greater than 3.5 mm (claiming a thickness of at least 1 mm). The claims of the '852 patent, however, were still allowed. **It appears that the Office is applying a different standard.**

In view of the foregoing, Appellant respectfully submits that the present specification reasonably conveys to one skilled in the art the claimed intermediate layer thickness.

Claim 1 additionally recites that the specific gravity of the intermediate layer is less than 1.2.

The Examiner contended that support did not exist because the specification did not expressly disclose a range of specific gravities of between 1.2 and 0.97.

Appellant previously pointed out numerous references in the present specification of intermediate layer specific gravities, such as 0.96, 0.954, 0.920 to 0.990. The Examiner is merely contending that there is a lack of literal support for the recitation of "less than 1.2", which as previously explained, is not the proper test.

It is also very revealing to note that the Examiner is applying inconsistent and contradictory standards as to which types or degrees of disclosures are proper and which types are allegedly not proper.

Applying the Examiner's standard to the allowed and issued U.S. Patent No. 5,553,852 (attached as Exhibit A to Appellant's Appeal Brief), would result in many

of those claims being invalid under § 112. Specifically, although the '852 patent discloses an upper limit of 1.2 for an intermediate layer specific gravity, that patent fails to disclose any specific gravity values for an intermediate layer which are greater than 0.95. Therefore, applying the Examiner's standard to the '852 patent, since the specification of that patent fails to disclose specific gravities between 1.2 and 0.95, § 112 support for that range does not exist. However, the claims of the '852 patent were still allowed.

Claim 1 further recites that the hardness of the inner layer be at least 85 on the JIS C (Shore C) scale.

The Examiner contended that there is no support for the range of hardness values from 85 to 95.

Appellant previously identified disclosures of 96 and 98 which certainly are "at least 85."

The sole basis for the Examiner's argument is that the description does not exactly recite the claimed range. As previously noted, that is not the proper standard under § 112.

Claim 1 also recites that the outer cover thickness is from 1 to 3 mm.

Again, the Examiner demands that every value within this range be disclosed in the specification. That is not the proper test under § 112.

For at least these reasons, Appellant respectfully submits that the rejection of claim 1 under § 112, first paragraph is misplaced and must be reversed.

## **2. Claim 3**

Claim 3, dependent from independent claim 1, recites that the cover has a hardness of 50 to 85 on the JIS C (Shore C) scale.

Appellant previously identified numerous disclosures in the specification of Shore D cover hardness values of 57, 40-50, 60, 55, 58, and 59. Referring to the noted ASTM comparison chart (attached as Exhibit C to Appellant's Appeal Brief), a range of Shore C values of about 60-80 are expressly disclosed.

It would be clear to one skilled in the art that the specification reasonably conveys a range of Shore C hardnesses of 50-85.

Claim 3 also recites that the center core has a hardness of 45 to 80 on the JIS C (Shore C) scale.

Appellant previously noted that although the present specification does not literally disclose hardness values for the core, the cores described in the specification would inherently exhibit hardnesses within the claimed range. And so, the present specification reasonably conveys that the inventor had possession of the claimed subject matter at the time of filing.

The Examiner responded by asking "inherent based on what?"

Appellant notes descriptions of cores and solid cores on pages 35 and 39-40 of the present specification. These cores inherently would exhibit Shore C hardnesses falling within the recited range. The Examiner did not produce any evidence or reason otherwise.

### **3. Claim 5**

Claim 5, dependent from claim 1, recites the diameter of the core as in the range of 29 to 37 mm.

Appellant previously noted that the present specification discloses a preferred diameter of 35 mm. It would be clear to one skilled in the art that the preferred core diameter would change depending upon the diameter of the ball. Furthermore, it would be clear that the noted disclosure of 35 mm is the only preferred diameter. Greater or lesser diameters could be employed.

The Examiner applies yet another new standard of review as to whether this recitation finds support under § 112. Here, the Examiner stated:

appellant has provided no evidence that a lower limit of  
29 mm was disclosed to the exclusion of other  
possibilities.

Page 7 of Examiner's Answer.

Since when must evidence be submitted as to a particular value being a lower limit to the exclusion of other values? Appellant knows of no such requirement in the law. Appellant submits that the proper standard under § 112, first paragraph, is that pronounced by the U.S. Court of Appeals for the Federal Circuit: The proper test is whether the disclosure, as originally filed, reasonably conveys to one skilled in the art that the inventor had possession of the claimed subject matter.



**4. Claim 6**

Claim 6, dependent from claim 1, recites the difference in specific gravity between the center core and the intermediate layer as in the range of 0.1 to 0.5.

Appellant previously cited a disclosed preferred range of 0.234 to 0.164, which falls within the claimed range of 0.1 to 0.5.

Here, the Examiner demanded evidence that values greater than 0.234 or less than 0.164 were intended as is now claimed. The Examiner then concluded that "values outside of this range represent new matter", page 7 of Examiner's Answer.

Perhaps the Examiner overlooked the fact that the disclosed range of 0.164 to 0.234 is a preferred range. Disclosure of a preferred set of values implies the existence of other less preferred values. Again, the Examiner is requiring exact literal support for claimed aspects. This is not the proper standard under § 112.

**5. Claims 7 and 8**

Claim 7 recites the specific gravity of the intermediate layer as in the range of 0.9 to 1.0. Claim 8 recites the hardness of the intermediate layer as in the range of 85-100 on JIS C.

As Appellant previously noted, express disclosure of specific gravity for the intermediate layer exists by references to values of 0.96 and 0.954 in the specification. Again, these are preferred values and as such, the claimed range is broader to also include less preferred values. Furthermore, the present specification additionally notes the use of Iotek® ionomers which have specific gravities of 0.920 to 0.990 (see Exhibit B to Appellant's Appeal Brief).

Concerning claim 8, Appellant previously pointed out that the hardness of the intermediate layer is expressly disclosed as having a Shore C hardness of 96 to 98. This falls within the recited range of 85 to 100.

The Examiner demanded evidence and mischaracterized what Appellant is claiming in claims 7 and 8:

[V]alues such as these represent new matter. The values now being claimed are only one possibility among an infinite number that appellant might have intended.

Page 7 of Examiner's Answer.

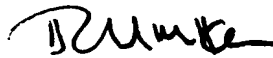
Appellant is not claiming an infinite number of values as the Examiner contends. No. Appellant has merely claimed a specific gravity for the intermediate layer of 0.9 to 1.0 (claim 7); and a hardness for the intermediate layer of 85 to 100 JIS C (claim 8). These claimed ranges are clearly not an infinite number.

Again, Appellant submits that the present specification reasonably conveys that the inventor had possession of the claimed subject matter.

For at least the foregoing reasons, the present rejection of claims 1-8 under § 112, first paragraph, is improper and must be reversed.

Respectfully Submitted,

FAY, SHARPE, FAGAN,  
MINNICH & McKEE, LLP



---

Richard M. Klein  
Reg. No. 33,000  
Mark E. Bandy  
Reg. No. 35,788  
1100 Superior Avenue, Suite 700  
Cleveland, Ohio 44114-2518  
(216) 861-5582